

What is claimed is:

- 1 1. An instrumentation device for controlling one or more instruments, wherein the instrumentation device comprising:
 - 3 an interface which accepts at least three sets of inputs and transmits at least three sets of outputs, the interface capable of transmitting signals of different voltage between the individual inputs and individual outputs of the interface and wherein the interface is capable of accepting, translating and transmitting as one of the at least three sets of outputs, input from more than one set of the at least sets of three inputs.
 - 1 2. The device according to claim 1, wherein at least one of the at least three sets of inputs is the output from a means for analyzing.
 - 1 3. The device according to claim 2, wherein the analyzing means is a chemiluminescence detection apparatus (CLD) and at least one of the at least three sets of outputs of the device is an input to the CLD.
 - 1 4. The device according to claim 3, wherein the device translates between a signal measured in mA and a signal measured in volts.

1 5. The device according to claim 4, wherein the interface
2 translates between a signal of at least about 0 mA and at
3 most about 20mA and a signal of at least about 0V and at
4 most about 10 V.

1 6. The device according to claim 5, wherein the interface also
2 translates at least one of the at least three outputs to a
3 5V signal.

1 7. The device according to claim 1, wherein at least one of the
2 set of at least three inputs is the output of a computer and
3 at least one of the set of at least three outputs of the
4 device is the computer.

1 8. The device according to claim 7, wherein the device
2 translates between at least two signal having a first and
3 second voltage.

1 9. The device according to claim 8 wherein the first voltage is
2 about 5V and the second voltage is about 24V.

1 10. The device according to claim 1 wherein at least one of the
2 at least three inputs is the output from, and at least one
3 of the at least three outputs is the input to a CMP
4 polisher.

1 11. The device according to claim 10, wherein the device
2 translates between at least two signals having a first and
3 second voltage.

1 12. The device according to claim 11 wherein the first voltage
2 is about 5V and the second voltage is about 24V.

1 13. The device according to claim 1 wherein the device provides
2 optical isolation between the instruments providing inputs
3 and outputs to the device.

1 14. An instrumentation device for controlling one or more
2 instruments, wherein the instrumentation device comprises:

3 a computer, having at least one set of computer input and at
4 least one set of computer output;
5 an analyzer, having at least one set of analyzer input and
6 at least one set of analyzer output;
7 a status light set, having at least two lights;
8 a polisher, having at least one set of polisher input and
9 one set of polisher output and
10 an interface which accepts three sets of inputs and
11 transmits four sets of outputs, wherein at least one of the
12 three sets of inputs is the output from the computer, at
13 least one of the three sets of inputs from the analyzer, at

14 least one of the three sets of inputs is from the polisher,
15 at least one of the four sets of outputs is to the computer,
16 at least one of the four sets of outputs is to the analyzer,
17 at least one of the four sets of outputs is to the status
18 light set and at least one set of outputs is to the polisher
19 and wherein the interface is capable of translating
20 individual inputs between two signals having a first and
21 second voltage.

1 15. An instrumentation device for controlling one or more
2 instruments, wherein the instrumentation device comprises:

3 an interface which accepts three sets of inputs and
4 transmits four sets of outputs, wherein at least one of the
5 three sets of inputs is the output from a computer, at least
6 one of the three sets of inputs is from an analyzer, at
7 least one of the three sets of inputs is from a polisher, at
8 least one of the four sets of outputs is to the computer, at
9 least one of the four sets of outputs is to the analyzer, at
10 least one of the four sets of outputs is to the status light
11 set and at least one set of outputs is to the polisher and
12 wherein the interface is capable of translating individual
13 inputs between two signals having a first and second
14 voltage.